LS1202M
LS1202MA

MADE IN USA

LS1502M
LS1502MA

LS1502
LS1502A

LS1503

LS2153

LS1801
LS1801A

LS1802

The LS Series from Carvin Audio are one of the best loudspeaker values on the market today, offering superb sound at high output levels. Your audience will appreciate the crystal clear highs, high intelligibility in the vocal range and deep solid bass, making all the difference in your performance. Building upon the company's long standing reputation for great sonic performance coupled with proven reliability and solid value, the LS Series loudspeakers deliver all the features musicians and mobile DJs demand.

Encompassing main and monitor 2-way systems, 3-way systems and subwoofer systems, with active and passive models, the LS Series is ideally suited to address a wide range of sound reinforcement system requirements from intimate clubs to large scale, high impact music venues. With key features like twist-lock and quarter-inch connectors across all models, steel grills to protect the drivers, recessed steel handles for easy transport, and high order – low loss biampable crossovers that ensure accurate reproduction of music sources, Carvin's LS Series loudspeakers are just what your audience has been waiting for.

The powered LS-A speakers take the guesswork out of selecting the ideal power source to drive your LS loudspeakers. The internal amplifiers are perfectly mated with the loudspeaker systems, making setup and operation easier with less gear to haul. Active full range systems feature 3 channel operation allowing use as a standalone PA system with seperate inputs levels for combining music sources (mixer/mic, instrument/mic, MP3/phone), a mix/thru switch on the XLR output, and a 3-band EQ with mid-sweep frequency. Active subwoofers feature a selectable active crossover at 80Hz or 120Hz with switchable high pass on the XLR output. Class-D operation and switchmode technology keep the amp modules cool running and lightweight. Built-in limiters help prevent clipping distortion and protect drivers.

Going one step further, all LS Series loudspeaker enclosures utilize cross grain laminated multi-ply hardwood construction. Why is this important? Unlike other materials, multi-ply hardwood construction results in a lightweight, rigid enclosure with reduced flex and sonic coloration caused by cabinet resonance, and the added benefit of a more structurally robust enclosure designed to handle the rigors of the road. The rugged black Duratuff™ covering adds another layer of protection from dents and scrapes. The Carvin Audio LS Series loudspeakers look every bit as compelling as they sound!

RECEIVING INSPECTION

INSPECT YOUR LOUDSPEAKER FOR DAMAGE which may have occurred during shipping. If damage is found, please notify the shipping company & CARVIN. SAVE THE CARTON & ALL PACKING MATERIALS. In the event you have to re-ship your unit, always use the original carton and packing material. CARVIN and the shipping company are not liable for any damage caused by improper packing. SAVE YOUR INVOICE. It will be required for warranty service if needed in the future.

SHIPMENT SHORTAGE. If you find items missing, they may have been shipped separately. Please allow several days for the rest of your order to arrive before inquiring.

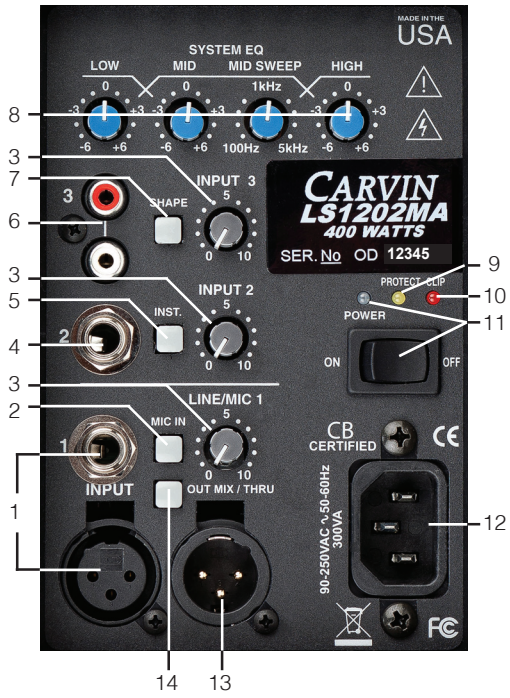
RECORD THE SERIAL NUMBER on the enclosed warranty card for your records. Return the warranty card with your name and comments to us.

CARVIN AUDIO

12340 WORLD TRADE DRIVE SAN DIEGO, CA 92128
800-854-2235 CARVINAUDIO.COM

Powered Full Range

LS1202MA, LS1502MA, LS1502A
ACTIVE REAR PANEL:



1. INPUT 1 XLR and 1/4" (TRS) JACK
Use these as the primary input from a mixer (or MIC, see #2). Using an XLR or 1/4" TRS cable from a balanced source will reduce noise which may be picked up by the cable. You may DAISY-CHAIN as many powered systems as you wish (see #13).

2. MIC IN SWITCH
Use the "OUT" position for normal line-level mixer input (note: if this switch is left "IN", signals from a mixer will be distorted). Press this switch "IN" to add 30dB of gain to the XLR and 1/4" inputs of INPUT 1 so that a microphone can be used.

3. LEVEL CONTROLS
The LINE/MIC 1, INPUT 2, and INPUT 3 level controls adjust the volume of each input.

4. INPUT 2
This input is designed with a high impedance (>100K ohms) for instruments such as a guitar. Other sources such as keyboards or drum machines can also be connected.

5. INSTRUMENT SWITCH
Press the switch "**IN**" to provide an alternate tone for instruments on INPUT 2.

6. INPUT 3
The RCA jacks are inputs for MP3 players, CD players, keyboards, and DJ mixers. The two input signals are combined into a mono signal. For stereo operation a second active speaker is required, with the Left signal going to one speaker and the Right signal going to a second speaker.

7. SHAPE SWITCH
Press the switch "**IN**" to change the EQ on INPUT 3, useful for playback of pre-recorded music.

8. ACTIVE EQUALIZATION
The active powered loudspeakers offer a 3-band mid sweep equalizer for custom tuning to the acoustical environment. The EQ system is engineered specifically for the active powered loudspeakers featuring a modest boost and cut range of ±6dB to prevent radical adjustments that could otherwise compromise the system. The Mid-band sweep is particularly useful for enhancing critical mid range frequencies for stage monitoring or for cutting certain frequencies to compensate for room resonances. These controls affect all 3 inputs.

9. PROTECT LED
If the system should go into protect mode, the YELLOW LED will light and the power amps will shut off. This may occur if; a) the system is overheated due to clipping the power amps for an extended period of time, b) one of the internal drivers developed a short, or c) the power amps require service.

10. CLIP LED
The RED CLIP LED will flash if an internal power amp start to distort. Turn the LEVEL controls down to avoid distortion. Damage to the drivers can result from operating at a level where the RED CLIP LED is constantly illuminated.

11. POWER SWITCH and LED
Push this switch to the "ON" position to apply power to the unit. The blue POWER LED will light to show the system is on. Power up your mixer first, then turn on the LS active speaker. When shutting down, turn the LS active speaker off first, then turn off the mixer.

12. AC POWER
Use a standard grounded AC cord. Whenever possible, use dedicated circuits for powered speakers.

13. OUTPUT XLR
Use the second XLR to link as many active powered systems as you wish. (see #14)

14. OUT MIX/THRU SWITCH (for daisy chaining additional systems)
Press the switch "**IN**" for a direct PARALLEL connection to INPUT 1 only - use with external mixer and for daisy chaining other powered systems. With the switch in the "**OUT**" position, the combination of all 3 channels including the EQ are sent to the OUTPUT XLR. This unit becomes the master source for other powered systems connected to the OUTPUT XLR.

Powered Subwoofer

1. INPUT 1 XLR and 1/4" (TRS) JACK
Use these as the primary input from a mixer. Using an XLR or 1/4" TRS cable from a balanced source will reduce noise which may be picked up by the cable. You may daisy-chain as many powered systems as you wish (see #3).

2. LEVEL CONTROL
Adjust the overall volume of the subwoofer.

3. OUTPUT XLR
Use the second XLR to link as many active powered systems as you wish. (see #4)

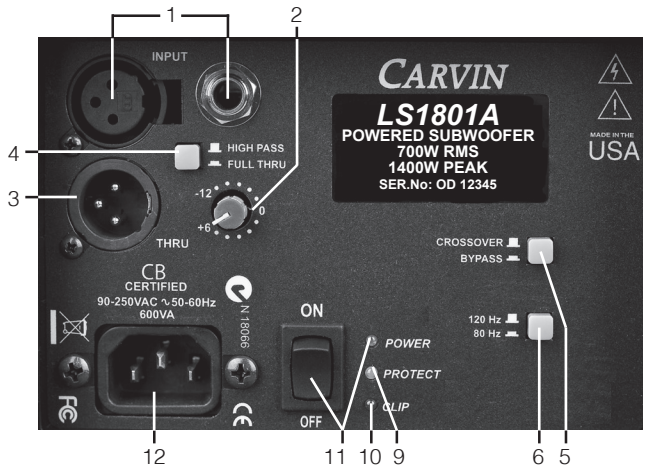
4. HIGH PASS OUTPUT SWITCH
The HIGH PASS switch changes the signal at XLR THRU from FULL range (parallel with Input) to HIGH PASS output (all frequencies above the 120Hz/80Hz crossover switch setting).
This is useful for going to amplified top cabinets that can not handle the sub's low frequencies.

5. CROSSOVER BYPASS SWITCH
The crossover bypass switch bypasses the internal active crossover allowing the use of an outboard active crossover.

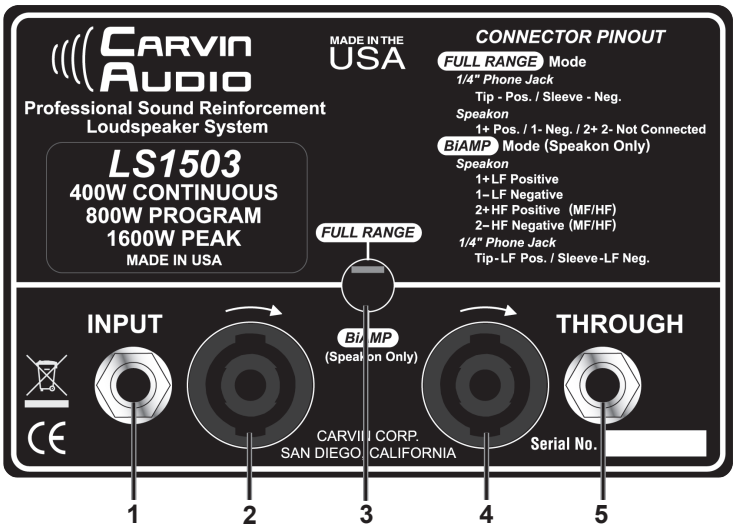
6. CROSSOVER FREQUENCY SWITCH
The CROSSOVER FREQUENCY switch selects the highest frequency to produced by the subwoofer. The 120Hz (OUT) setting is generally used with small to mid-sized speakers in your setup. The 80Hz (IN) setting is generally used with larger speakers.

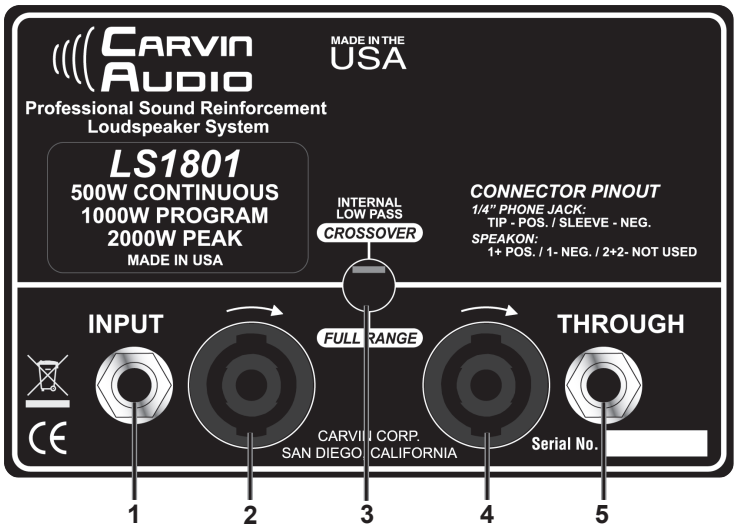
SEE #9, 10, 11, 12 above for LED indicators and AC power.

LS1801A
ACTIVE REAR PANEL:



Passive Non-Powered Models





MULTI-WAY CROSSOVER CONNECTIONS (non-powered models)

Use 1/4" or Twist-Lock cables for connecting to the power amp and daisy chaining to additional speakers. For high powered and biamp applications, use Twist-Lock cables only.

1. 1/4" INPUT from power amp output (full range input only).
2. Twist-Lock INPUT from power amp (full range or biamp).
Note: the Twist-Lock pin configuration for biamping is:
1+ LF Positive / 1- LF Negative, 2+ MF/HF Positive / 2- MF/HF Negative
3. Full Range/Biamp mode switch
4. Twist-Lock THROUGH wired in parallel with Twist-Lock INPUT.
5. 1/4" THROUGH wired in parallel with 1/4" INPUT.

SUGGESTIONS FOR OPTIMAL PERFORMANCE

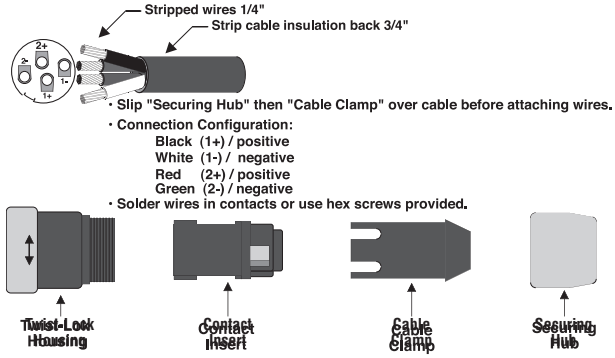
• To help control feedback and to correct for venue characteristics, use a graphic EQ.
• For optimal coverage and dispersion, elevate the high frequency horns above eye level.
• For optimal headroom, select an amplifier with a power capacity equal to or up to double the rated program power capacity of the loudspeaker system.
• Ensure all amplifiers are supplied and connected to properly rated AC power circuits. Underpowering amplifiers may cause premature clipping distortion.

SPEAKER CABLES Use either Carvin's professional speaker cable for up to 50' or high-current 12GA Twist-Lock cables for lengths up to 150'. 18GA cables are not recomended. You can DAISY-CHAIN up to one additional speaker per cable by using the OUTPUT connector. Be sure the total impedance to the amplifier is not lower than the amplifier's minimum impedance.

SUBWOOFER CROSSOVER CONNECTIONS (non-powered models)

1. 1/4" INPUT from power amp output.
2. Twist-Lock INPUT from power amp.
Note: the Twist-Lock pin configeration is:
1+ LF Positive / 1- LF Negative, 2+ not connected / 2- not connected
3. Crossover/Bypass mode switch to bypass internal crossover
(must use active crossover when in bypass mode)
4. Twist-Lock THROUGH wired in parallel with Twist-Lock INPUT.
5. 1/4" THROUGH wired in parallel with 1/4" INPUT.

TWIST-LOCK CONNECTOR WIRING



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT! FOR YOUR PROTECTION, PLEASE READ THE FOLLOWING:
WATER AND MOISTURE: Appliance should not be used near water (near a bathtub, washbowl, sink, laundry tub, in a wet basement, near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
POWER SOURCES: The product should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
GROUNDING OR POLARIZATION: Precautions should be taken so that the grounding or polarization is not defeated.
POWER CORD PROTECTION: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs.
SERVICING: The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
FUSING: If your unit is equipped with a fuse receptacle, replace only with the same type fuse. Refer to replacement text on the unit for correct fuse type.

SAFETY INSTRUCTIONS (EUROPEAN)
The conductors in the AC power cord are colored in accordance with the following code.
GREEN & YELLOW—Earth BLUE—Neutral BROWN—Live
U.K. MAIN PLUG WARNING: A molded main plug that has been cut off from the cord is unsafe. NEVER UNDER ANY CIRCUMSTANCES SHOULD YOU INSERT A DAMAGED OR CUT MAIN PLUG INTO A POWER SOCKET.

LIMITED WARRANTY

Your Carvin Audio loudspeaker is guaranteed against failure for 5 YEARS unless otherwise stated. Carvin Audio will service and supply all parts at no charge to the customer providing the unit is under warranty. Shipping costs are the responsibility of the customer. CARVIN AUDIO DOES NOT PAY FOR PARTS OR SERVICING OTHER THAN OUR OWN. A COPY OF THE ORIGINAL INVOICE IS REQUIRED TO VERIFY YOUR WARRANTY. Carvin Audio assumes no responsibility for horn drivers or speakers damaged by this unit. This warranty does not cover, and no liability is assumed, for damage due to: natural disasters, accidents, abuse, loss of parts, lack of reasonable care, incorrect use, or failure to follow instructions. This warranty is in lieu of all other warranties, expressed or implied. No representative or person is authorized to represent or assume for Carvin any liability in connection with the sale or servicing of Carvin Audio products.

CARVIN AUDIO SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

MAINTAINING YOUR EQUIPMENT

Avoid spilling liquids or allowing any other foreign matter inside the unit. The panel of your unit can be wiped with a dry or slightly damp cloth in order to remove dust and bring back the new look. As with all pro gear, avoid prolonged use in caustic environments (salt air). When used in such an environment, be sure the amplifier is adequately protected.

SERVICE:
In the USA, please go to www.carvinaudio.com
under "SUPPORT" click on "REPAIR INFORMATION"
Outside the USA:
contact your dealer or go to http://www.carvinaudio.com
click on "DEALERS" for your nearest service center.
Include a written description of the problem with serial number and date of purchase.

Specification	LS1202M	LS1502M	LS1502
System Type:	12-inch 2-Way, bass-reflex	15-inch 2-Way, bass-reflex	15-inch 2-Way, bass-reflex
Frequency Response:	70 Hz – 20 kHz (-10dB) 76 Hz – 18 kHz (-3dB)	47 Hz – 20 kHz (-10dB) 18 kHz (-3dB)	47 Hz – 20 kHz (-10dB) 53 Hz – 18 kHz (-3dB)
Coverage Pattern:	90H x 60V	90H x 60V	90H x 60V
Crossover:	2-Way with Speaker Guard™	2-Way with Speaker Guard™	2-Way with Speaker Guard™
Crossover Frequency:	2.5 kHz	2.5 kHz	2.5 kHz
Power (Full Range): Cont. / Prog. / Peak	300W / 600W / 1200W	400W / 800W / 1600W	400W / 800W / 1600W
Sensitivity (1W @ 1m):	97dB	100dB	100dB
Maximum SPL:	122dB Cont./ 128dB Peak	126dB Cont./ 132dB Peak	126dB Cont./ 132dB Peak
LF Driver:	12-inch woofer	15-inch woofer	15-inch woofer
HF Driver:	1-inch titanium	1-inch titanium	1-inch titanium
Nominal Impedance full range:	8 Ohms	8 Ohms	8 Ohms
Bi-amp LF:	8 Ohms 300W / 600W / 1200W	8 Ohms 400W / 800W / 1600W	8 Ohms 400W / 800W / 1600W
Bi-amp HF:	16 Ohms 50W / 100W / 200W	16 Ohms 50W / 100W / 200W	16 Ohms 50W / 100W / 200W
Suspension/Mounting:	none	none	1-3/8-inch pole mount cup
Connectors:	Two NL-4 Twist-lock Two 1/4” jacks	Two NL-4 Twist-lock Two 1/4” TS jacks	Two NL-4 Twist-lock Two 1/4” TS jacks
Dimensions (H x W x D):	22.75 in x 15.5 in x 14.75 in 580 mm x 395 mm x 375 mm	25.75 in x 18.5 in x 15.75 in 655 mm x 470 mm x 400 mm	25.75 in x 18.5 in x 11.75 in 655 mm x 470 mm x 300 mm
Net Wt:	33 lb (15 kg)	44 lb (20 kg)	44 lb (20 kg)
Optional Accessories:	CVS1202MA cover	CVS1502MB cover	CVS1502B cover

Specification	LS1503	LS2153
System Type:	15-inch 3-Way, bass-reflex	Dual 15-inch 3-Way, bass-reflex
Frequency Response:	46 Hz – 20 kHz (-10dB) 52 Hz – 18 kHz (-3dB)	45 Hz – 20 kHz (-10dB) 51 Hz – 18 kHz (-3dB)
Coverage Pattern:	90H x 60V	90H x 60V
Crossover:	3-Way with Speaker Guard™	3-Way with Speaker Guard™
Crossover Frequency:	500Hz & 3.3 kHz	350Hz, 2.5 kHz
Power (Full Range): Cont. / Prog. / Peak	400W / 800W / 1600W	800W / 1600W / 3200W
Sensitivity (1W @ 1m):	101dB	101dB
Maximum SPL:	127dB Cont./ 133dB Peak	130dB Cont./ 136dB Peak
LF Driver:	15-inch woofer	15-inch woofer/mids
MF Driver:	6-inch mid	15-inch woofer
HF Driver:	1-inch titanium	1-inch 1.5” Dia. titanium
Nominal Impedance full range:	8 Ohms	4 Ohms
Bi-amp LF:	8 Ohms 400W / 800W / 1600W	4 Ohms 800W / 1600W / 3200W
Bi-amp MF/HF:	8 Ohms 200W / 400W / 800W	16 Ohms 50W / 100W / 200W
Suspension/Mounting:	1-3/8-inch pole mount cup	none
Connectors:	Two NL-4 Twist-lock Two 1/4” jacks	Two NL-4 Twist-lock Two 1/4” TS jacks
Dimensions (H x W x D):	28.75 in x 18.75 in x 15 in 730 mm x 480 mm x 380 mm	43.75 in x 16.5 in x 15 in 1110 mm x 420 mm x 380 mm
Net Wt:	58 lb (26.4 kg)	73 lb (33 kg)
Optional Accessories:	CVS1503A cover	CVS2153A cover

Specification	LS1801	LS1802
System Type:	18-inch Sub, bass-reflex	Dual 18-inch Sub, bass-reflex
Frequency Response:	29 Hz – 265 Hz (-10dB) 35 Hz – 150 Hz (-3dB)	24 Hz – 265 Hz (-10dB) 30 Hz – 150 Hz (-3dB)
Coverage Pattern:	omni	omni
Crossover:	Low Pass	Low Pass
Crossover Frequency:	150 Hz	150 Hz
Power (Full Range): Cont. / Prog. / Peak	500W / 1000W / 2000W	1000W / 2000W / 4000W
Sensitivity (1W @ 1m):	98dB	101dB
Maximum SPL:	125dB Cont./ 131dB Peak	131dB Cont./ 137dB Peak
LF Driver:	18-inch woofer	Dual 18-inch woofers
Nominal Impedance full range:	8 Ohms	4 Ohms
Suspension/Mounting:	Top 1-3/8-inch Pole Mount Cup	none
Connectors:	Two NL-4 Twist-lock Two 1/4” TS jacks	Two NL-4 Twist-lock Two 1/4” TS jacks
Dimensions (H x W x D):	23.5 in x 19.75 in x 22.75 in 600 mm x 505 mm x 580 mm	23.5 in x 40 in x 22.75 in 600 mm x 1020 mm x 580 mm
Net Wt:	69 lb (31 kg)	122 lb (55 kg)
Optional Accessories:	CVS1801A cover	CVS1802A cover

Specification for Active Models:	LS1202MA	LS1502MA, LS1502A	LS1801A
	SAME AS PASSIVE MODEL EXCEPT: Internal Amplifier: 400Watts Maximum SPL: 124dB peak Crossover Frequency: 2.5 kHz Speaker Protection: Active HF & LF Limiter Connectors: one XLR Male, one XLR Female two 1/4” TRS jacks two RCA jacks AC Power Requirement: 90-250VAC 50-60Hz 300VA	SAME AS PASSIVE MODEL EXCEPT: Internal Amplifier: 400Watts Maximum SPL: 128dB peak Crossover Frequency: 2.5 kHz Speaker Protection: Active HF & LF Limiter Connectors: one XLR Male, one XLR Female two 1/4” TRS jacks two RCA jacks AC Power Requirement: 90-250VAC 50-60Hz 300VA	SAME AS PASSIVE MODEL EXCEPT: Internal Amplifier: 1400Watts Maximum SPL: 128dB peak Crossover Frequency: 80Hz,120Hz or Bypass Speaker Protection: Active Limiter Connectors: one XLR Male, one XLR Female one 1/4” TRS jack AC Power Requirement: 90-250VAC 50-60Hz 600VA